DOCUMENT RESUME

ED 242 430 PS 014 312

AUTHOR Burton, Stephen A.; Goggin, William C.
TITLE An Assessment of Interpersonal Behavior Development Using the FIRO-BC.
PUB DATE Mar 83
NOTE 23p.; Paper presented at the Annual Meeting of the Southeastern Psychological Association (28th, Atlanta, GA, March 24-26, 1983).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Age Differences; *Developmental Stages; Geographic Location; *Interpersonal Relationship; *Preadolescents; Sex Differences; *Social Behavior; *Social Development; Theories
IDENTIFIERS *Fundamental Interpersonal Relations Orientation BC; Schutz (William)

ABSTRACT

Many human behaviors (e.g., cognitive, moral, and psychosocial) follow predictable developmental patterns or stages. The study reported examined the interpersonal development of 9- through 13-year-old children. A total of 282 children were administered the Fundamental Interpersonal Relations Orientation - Behavior Children (FIRO-BC) test to identify and describe a stage-like progression in interpersonal behavior development. The data presented here failed to evidence such a progression. Rather, interpersonal behavior was largely unrelated to age until children reached 13, whereupon their profiles were significantly different from those of younger children. Similarly, gender-related differences appeared for the first time in 11-year-olds and increased dramatically by age 13. These two facts suggest that interpersonal behavior may be more clearly related to puberty than has been previously supposed. (Author/RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED242430

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

An Assessment of Interpersonal Behavior Development Using the FIRO-BC

Stephen A. Burton and William C. Goggin

University of Southern Mississippi

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Stephen A. Burton

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Running head: Interpersonal Development

PS 014312

Abstract

Many human behaviors (e.g., cognitive, moral, and psychosocial) follow predictable developmental patterns, or stages. The present study examined the interpersonal development of nine- through thirteen-year-old children. Two-hundred eighty-two children were administered the FIRO-BC (Wood & Schutz, 1972), to test for such a stage-like progression in interpersonal behavior development. The data presented here failed to evidence such a progression. Rather, interpersonal behavior, as measured by the FIRO-BC, was largely unrelated to age until 13 years old; whereupon, the FIRO-BC profiles of 13-year-olds were significantly different from those of the younger children. Similarly, gender-related differences appeared for the first time in 11-year-olds and increased dramatically by age 13. These two facts suggest that interpersonal behavior may be more clearly related to puberty than has been previously supposed.

An Assessment of Interpersonal Behavior Development Using the FIRO-BC

Many human behaviors follow predictable developmental patterns or stages; e.g., cognitive (Piaget, 1954), moral (Kohlberg, 1968), and psychosocial (Erikson, 1959) behavior. This investigation specifically addresses whether interpersonal behaviors develop in a predictable stage-like manner as theorized by Schutz (1958). In addition, the authors examined the gender-and geographical-related differences in interpersonal behavior orientations.

The FIRO Theory of Interpersonal Behavior

In a review of interpersonal psychology, Wiggins (1968) refers to Schutz' FIRO theory as "strangely neglected" (p. 322). This neglect is unfortunate because few interpersonal theories provide a theoretically-based instrument for measuring interpersonal behavior. In an essay concerning effective methods of obtaining the most information from a questionnaire, Pfeiffer and Heslin (1973) chose the adult version of the FIRO-BC as an exemplar. Yet, the questionnaire is rarely used in research.

Schutz (1958) developed a three-dimensional theory in which he hypothesizes that interpersonal behavior is directed toward the satisfaction of specific

interpersonal needs, i.e., the needs for affection, control, and inclusion. Interpersonal behavior is further defined as a two-way process in which individuals "express" behavior toward others, as well as "want" to experience certain behaviors from others. Foa (1961) supports the wanted-expressed distinction, concluding that "an interpersonal act is an attempt to establish the relative emotional relationship towards the actor himself as well as towards others" (p. 350).

Schutz postulated that the following six combinations would account for a large portion of the variance in interpersonal behavior: expressed-inclusion, expressed-control, expressed-affection, wanted-inclusion, wanted-control, and wanted-affection. Each of the six behavioral dimensions are described below.

The inclusion dimension is a measure of general social orientation. A high expressed-inclusion score suggests that the person is comfortable around people and tends toward frequent involvement in social situations; a low expressed-inclusion score indicates that the person is uncomfortable around people and tends to remain aloof from social interaction. A low wanted-inclusion score suggests that a person is selective in forming affiliations; a high wanted-inclusion score implies a strong need to be included

and accepted.

The control dimension represents leadership behavior, and is not intended to reflect the concept of self-control or the rigidity which characterizes the obsessive-compulsive individual (Gard, 1964). A low expressed-control score suggests a tendency to avoid making decisions and a failure to take responsibility; a high expressed-control score indicates that the person typically takes on the responsibility which is inherent to leadership roles. A low wanted-control score indicates an aversion to other people having control or making decisions; a high wanted-control score reflects high dependency needs or a tolerance of being controlled.

The affection dimension measures the need for deep personal relationships with others. Whereas the other two areas concern expressed and wanted interaction between groups of people, the affection dimension is restricted to dyadic or one-to-one interactions. A low expressed-affection score reflects caution in initiating close, personal relationships; a high expressed-affection score indicates a tendency to frequently seek emotional involvement with others. A high wanted-affection score suggests a strong desire to be sought out in close, intimate relationships with others; a low wanted-affection score implies that a

high degree of selectivity is used in forming deep relationships.

Schutz (1958) hypothesized a progressive development of interpersonal behavior, which he believed to be consistent across individuals. He postulated that inclusion needs would dominate early interpersonal behavior, followed by control and, finally, by affection during the later developmental stages. This theory suggests that control behavior would be most evident between the peak of inclusion behavior and the peak of affection behavior. Unfortunately, Schutz leaves this aspect of his theory in its primitive stages, failing to specify the developmental time frame which is associated with interpersonal behavior change.

Hypotheses

Schutz' failure to clearly formulate a developmental time frame makes it difficult to generate hypotheses about FIRO interpersonal development. The questions addressed in this study attempt to clarify the relationship between age and interpersonal development as measured by the FIRO-BC. Specifically, is there an age-related, stage-like progression in the development of interpersonal behavior? It was hypothesized that children grouped by age would produce significantly different FIRO-BC profiles.

Gender-related differences were also examined. Exline, Gray, and Schuette (1965) reported that college-aged women scored higher than did college-aged men on the two inclusion and the two affection scales. If interpersonal behavior orientations remain stable over time, one would expect the above relationships to hold true for younger children; i.e., girls to obtain higher scores than do boys on the two inclusion and the two affection scales. Unfortunately, scale-score means are not reported separately for girls and for boys in the existing FIRO-BC normative data (Schutz, 1978); therefore, those data cannot be used to address possible gender-related differences in interpersonal orientations. The present investigation questioned, therefore, whether girls and boys would demonstrate similar FIRO gender differences to those reported in an adult population (Exline et al., 1965).

The FIRO-BC norms were gathered on children living in the New York City area; the present investigation used children from southern Mississippi. An additional question was whether children from different geographical locations might report different interpersonal behavior profiles?

Method

Subjects

The subjects were 282 volunteers, who were enrolled in a public school system which is located in southern Mississippi. Nine-, ten-, eleven-, twelve-, and thirteen-year-old girls, respectively, accounted for 8.5, 16.7, 12.8, 12.8, and 7.4% of the sample. Nine-, ten-, eleven-, twelve-, and thirteen-year-old boys, respectively, accounted for 8.8, 11.3, 8.2, 5.7, and 7.8% of the sample. There were no significant differences in parents' socioeconomic status among the different age groups.

Instrument

The FIRO-BC (1972) was administered to each subject to assess interpersonal behavior orientation. The administration of the FIRO-BC is easily standardized and requires little explanation on the part of the administrator.

Procedure

The children, in their classrooms, were presented with a standardized consent form, which was to be completed by the parent. Two days later, this investigator returned to each classroom to encourage participation and to reissue consent forms as necessary. Approximately fifty-percent of the families agreed to participate. One week later, the FIRO-BC was

administered as described in the manual (Schutz, 1978) by classrooms; the testing-groups ranged from twenty to twenty-five children each.

RESULTS

The most interesting findings are those related to age and gender; therefore, the results will be discussed principally in terms of the relationship between age, gender, and interpersonal behavior. The data were examined using a profile analysis (Cattell, 1966). The statistic reported is a multivariate correlational index of pattern similarity (Rp). It ranges from -1.0, which indicates complete dissimilarity, to +1.0, which indicates that the compared profiles are the same. Table 1 displays the group means of FIRO-BC scale scores (z scores) broken down by age for girls and boys. A table to convert FIRO-BC scale scores to z scores has been provided in the literature (Burton & Goggin, in press).

Insert Table 1 about here

Age Differences

To examine the first hypothesis, children's profiles were grouped by age (see Table 2). There were no systematic, significant relationships in FIRO-BC scores among the 9- through 12-year-old age groups of children. However, 13-year-olds were significantly

dissimilar from 9-, 10-, and 11-year-olds. The profiles of 12- and 13-year-old children were also dissimilar, but only at the $p<.06$ level of significance.

Insert Table 2 about here

Gender Differences

Comparing the profiles of boys and girls revealed a large main effect for Gender, $\underline{R}p= -.731$, $p<.01$. In other words, gender accounted for 50% of the sample's variance among interpersonal behavior profiles.

Hypothesis Two was that girls would score higher than would boys on the two inclusion and the two affection scales. Girls scored significantly higher than did boys on expressed-inclusion, $t(280)= 13.42$, $p<.001$; expressed-affection, $t(280)= 36.91$, $p<.001$; and wanted-affection, $t(280)= 19.46$, $p<.001$. Post hoc t tests examined the gender differences on the remaining two FIRO-BC scales. Because of the number of post hoc analyses, a conservative approach was employed in all post hoc testing; a minimum alpha level of .01 was required for statistical significance. The data showed that boys scored significantly higher than did girls on both expressed-control, $t(280)= -13.09$, $p<.01$; and wanted-control, $t(280)= -6.052$, $p<.01$.

Age X Gender Interactions

Table 3 displays the similarity coefficients between boys and girls by age. Looking at gender differences across age, boys' and girls' profiles were not significa.ly dissimilar until age 11. In other words, there was no significant relationship between the profiles of 9-year-old boys and girls, nor between 10-year-old boys and girls. However, from ages 11 through 13, boys and girls exhibited markedly dissimilar profiles; the largest differences were within the 13-year-olds. Post hoc *t* tests were used to determine the significant differences in the profiles.

Insert Table 3 about here

Wanted-control was the only scale on which 11-year-old boys and girls did not differ significantly. Girls scored significantly higher on each of the remaining five scales: expressed-inclusion, $t(50)=2.733$, $p<.01$; expressed-control, $t(50)=4.977$, $p<.01$; expressed-affection, $t(280)=9.855$, $p<.01$; wanted-inclusion, $t(50)=3.215$, $p<.01$; and wanted-affection, $t(50)=6.851$, $p<.01$.

Twelve-year-old boys and girls differed significantly on three scales. As with 11-year-olds, girls scored higher on expressed-inclusion, $t(50)=6.410$, $p<.01$; expressed-affection, $t(50)=7.684$,

$p<.01$; and wanted-affection, $t(50)=5.512$, $p<.01$.

The scale-score differences between 13-year-old boys and girls are almost the same as those between 11-year-old boys and girls, the only exception being expressed-control. Thirteen-year-old girls scored significantly higher than did thirteen-year-old boys on four scales: expressed-inclusion, $t(40)=7.673$, $p<.01$; expressed-affection, $t(40)=11.955$, $p<.01$; wanted-inclusion, $t(40)=4.554$, $p<.01$; and wanted-affection, $t(40)=7.599$, $p<.01$. Thirteen-year-old boys scored significantly higher than did thirteen-year-old girls on expressed-control, $t(40)= -8.465$, $p<.01$.

Geographical Differences

The data from this investigation did not show the same relationship exhibited in the FIRO-BC norms, in which children scored significantly higher on the wanted than on the expressed scales. Rather, this relationship was supported only on the control scales, $t=3.71$, $p<.01$. There were no significant differences between the wanted- and expressed- inclusion scales; and the children displayed the opposite relationship for affection behavior, demonstrating higher scores on the expressed than on the wanted scale.

DISCUSSION

A number of intriguing relationships were revealed between age, gender, and FIRO-BC scores. Based on the

development of moral, cognitive, and psychosocial behavior, it was hypothesized that interpersonal behavior would progress in a stage-like fashion between the ages of 9 and 13 years old. However, the data revealed that age-related changes in interpersonal behavior do not occur until age 13, suggesting that at age 13, interpersonal behavior styles begin to deviate from those of younger age groups. Note also that the relationship which has been demonstrated by adults (i.e., women scoring higher than men on the inclusion and affections scales) did not hold true for nine and ten year old children; the above relationship did hold true for 11, 12 (with the exception of one scale) and 13 year old children, however. The fact that childhood interpersonal profiles are similar to adult profiles suggest that FIRO interpersonal orientations remain stable after 11 years of age.

Regional influences offer a possible explanation for the observed differences between the present sample and the normative data (Schutz, 1978). Perhaps the FIRO manual should also report separate norms for different geographical populations.

It may be that puberty is related to these age-related differences in interpersonal behavior. If pubertal influences are important in interpersonal

development, one might also expect there to be significant post-pubertal gender differences between FIRO-BC scores. These gender differences were exhibited; in fact their magnitude is an argument for reporting separate norms for boys and girls, which has recently been done (Burton & Goggin, in press).

Although these data are interesting, systematic research which replicates these findings is important, and such research should involve additional measures of interpersonal behavior. It may be that age-related differences exist, but that the FIRO-BC is not sensitive to those differences prior to the marked changes which appear to be related to puberty.

Profile differences between boys and girls on the FIRO-BC did not occur prior to age 11, but dramatically increased by age 13. FIRO-BC scores may reflect the biological, psychological, and sociological changes which occur in boys and girls at this age. In this investigation, we may have reduced the influence of environmental factors by grouping the subjects by age rather than by grade in school. Age may be considered more of a biological factor, whereas scool grage may be more related to environmental factors.

Unfortunately, data were not collected which would group children as pre- or post-puberty. Subsequent discussion is therefore based on accepted findings that

puberty typically occurs between ages eleven and thirteen (Horrocks, 1976). Replication which includes an objective pubertal assessment would provide less speculative conclusions. Yet, the contiguity of pubertal experiences and FIRO-BC gender differences supports a relationship between puberty and interpersonal behavior development.

Obviously, this study is insufficient for identifying the relative contributions of social-learning versus maturation in interpersonal-behavior development. However, it does suggest an interesting future research project. A large body of literature supports the notion that sex-role behavior is learned rather than a result of biological factors (Maccoby & Jacklin, 1974). One might compare FIRO-BC scores between boys and girls who vary in degrees of reported masculinity and femininity (Bem, 1974). For example, one might compare the FIRO-BC scores for high-masculine boys with those of low-masculine boys. In the same vein, one might compare the FIRO-BC scores for high-feminine girls with those of low-feminine girls. If biological influences exert a stronger influence than does social learning on interpersonal development, one would expect the group of boys to be similar to each other and the group of girls to be similar to each other, regardless of masculinity or femininity. One

also would expect the boys to be significantly different from the girls. However, if social learning were the principal determinant in interpersonal development, one might expect high-masculine boys to be significantly similar to high-masculine girls, whereas high-feminine girls would be significantly similar to high-feminine boys. In other words, the differences may not be across gender, but rather may be across one's learned attitude or sex-role behavior.

The FIRO-BC provides psychology with an objective measure of childhood interpersonal orientations--how children report their behavioral interactions with others. Yet, despite being one of the few behavior questionnaires which is derived from an interpersonal theory, the FIRO-BC has generated little research. This study not only supports the FIRO-BC's utility, but suggests an interesting relationship between puberty and interpersonal behavior changes. However, this conclusion is based on cross-sectional group data; these findings may not accurately predict the development of a particular child. An interesting question is whether the 9- and 10-year-olds in this sample will exhibit gender-related differences in reported interpersonal behavior as they become older? Longitudinal data, which are currently being gathered, may generate useful information with respect to the

study of gender-and age-related differences in childhood interpersonal behavior development.

References

Bem, S. L. (1974). The measurement of psychological androgyny. Journal of Consulting and Clinical Psychology, 42, 155-162.

Burton, S. A., & Goggin, W. C. Normative and Psychometric data for nine- through thirteen-year-old children. Journal of Clinical Psychology, In Press.

Cattel, R. B. (Ed). (1966). The handbook of multivariate experimental psychology. Chicago: Rand McNally.

Erikson, E. H. (1959). Identity and the life cycle. New York: W. W. Norton & Company, (republished, 1980).

Exline, R., Gray, D., & Schuette, D. (1965). Visual behavior in a dyad as affected by interview contact and sex of respondent. Journal of Personality and Social Psychology, 1, 201-209.

Foa, U. G. (1961). Convergences in the analysis of the structure of interpersonal behavior. Psychological Review, 68, 341-353.

Gard, J.C. (1964). Interpersonal orientations in clinical groups. Journal of Abnormal and Social Psychology, 1964, 69, 516-521.

Horrocks, J. E. (1976). The psychology of adolescence (4th Ed.). Boston: Houghton Mifflin Company, 1976.

Kolhberg, L. (1968). *Stages in the development of moral thought and action*. New York: Holt, Rinehart and Winston.

Maccoby, E. E., & Jacklin, C. N. (1974). *The psychology of sex differences*. Stanford, California: Stanford University Press.

Pfeiffer, W., & Heslin, R. (1973). *Instrumentation in human relations training*. San Diego, California: University Associates, 1973.

Piaget, J. (1954). *The moral judgement of the child* (2nd Ed.). New York: Basic Books.

Schutz, W. C. (1958). *FIRO: A three dimensional theory of interpersonal behavior*. New York: Rinehart, (republished, 1967).

Schutz, W. C. (1978). *FIRO awareness scales manual*. Palo Alto, California: Consulting Psychologists Press.

Schutz, W. C., & Wood, M. (1972). *FIRO-BC* (2nd Ed.). Palo Alto, California: Consulting Psychologists Press, (revised, 1977).

Wiggins, J. (1968). Personality structure. In Farnsworth, P. (Ed.), *Annual review of psychology*. Palo Alto, California: Annual Reviews, Inc., pp. 293-350.

Table 1

The group means of FIRO-BC scale scores (z scores) broken down by age for boys and girls (N=282).

		FIRO-BC Scales					
Age	Sex	EI	EC	EA	WI	WC	WA
9	girls	.514	-2.865	1.812	-.057	-.995	2.286
	boys	-.461	-1.339	-.476	.908	.314	.941
10	girls	-.796	-1.380	.374	-1.950	.129	-.421
	boys	.166	.415	-.701	.226	.949	-.704
11	girls	.747	2.101	1.466	1.249	.625	.705
	boys	-.398	-.123	-2.092	-.288	1.414	-2.063
12	girls	1.211	.522	1.466	.959	.409	.430
	boys	-1.475	2.101	-1.308	.030	-.023	-1.787
13	girls	1.495	-.388	.739	.876	-2.462	1.550
	boys	-1.720	3.379	-3.577	-1.301	-1.732	-1.520
Standard Error		.419	.445	.361	.478	.386	.404

Table 2

Indicies of pattern similarity

on the FIRO-BC scales by age

		Age in years			
		9	10	11	12
Age in years	10	-.303			
	11	-.511 *	-.144		
	12	-.274	.031	.539 *	
	13	-.625 **	-.451 *	-.407 *	-.399

* P<.05

** p<.01

Table 3

Indicies of pattern similarity comparing boys to girls of the same age on the FIRO-BC scale scores

Compared Age Groups	Correlation Coefficients (Rp)
9-year-old girls vs boys	.096
10-year-old girls vs boys	.004
11-year-old girls vs boys	.468 *
12-year-old girls vs boys	.444 *
13-year-old girls vs boys	.688 **

* $p < .05$

** $p < .01$